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PATENT SPECIFICATION



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PROVISIONAL SPECIFICATION

Improvements in or relating to Battery Holders for Electric Clocks

We, FREDERICK ALEXANDER LANFRANCONI, of Swiss nationality, of 3, Broadway Mansions, Walham Green, London, S.W.6, and THE BRITISH VACUUM CLEANER & ENGINEERING COMPANY LIMITED, a British Company, of Parsons Green Lane, Fulham, London, S.W.6, do hereby declare the nature of this invention to be as follows:—

10 This invention relates to electric clocks of the battery operated type and has for its object to provide an improved battery holder or receptacle for such clocks.

According to the invention the battery holder or receptacle consists of a recess 15 formed in the base or casing of the clock and divided by means of a partition into a larger compartment adapted to receive the battery and a smaller compartment 20 adapted to receive the ends of the conductors leading to the clock mechanism, the partition carrying a pair of terminal connectors which protrude through the partition to make contact with the 25 terminals of the battery.

In a preferred form of the invention the aforesaid recess consists of an elongated rectangular channel cut into the base or casing of the clock, the 30 partition being in the form of a plate made of insulating material such as that known under the registered Trade Mark "Bakelite" and fixed in the channel near one end thereof so as to provide a 35 compartment into which the battery fits snugly. The partition carries a pair of terminal connectors fitted on one side of

the partition with binding screws or other suitable devices for connection to flexible conductors leading to the clock mechanism and projecting through the partition so as to make contact with the usual spring contacts on the battery, the arrangement being such that the spring 45 contacts on the battery are compressed when the battery is inserted into the recess.

In order to hold the battery securely in place, a flat bar may be hinged to the base or casing of the clock adjacent the 50 recess so that it can be swung across the recess in such a way as to overlie the battery, suitable fastening means such as a recess at the end of the bar adapted to engage a pin or stud on the base or casing 55 of the clock being provided to locate the bar in the closed position. The bar is preferably sunk in a shallow recess formed in the base or wall of the clock, this recess being of such dimensions as to 60 permit the bar to be swung clear to permit insertion or removal of the battery.

The channel to receive the battery is preferably cut in the bottom of the base 65 or pedestal of the clock so that it faces downwards and is hidden when the clock stands in an upright position.

Dated this 14th day of June, 1937.

HERON ROGERS & CO.,
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Bridge House,
181, Queen Victoria Street,
London, E.C.4.

COMPLETE SPECIFICATION

Improvements in or relating to Battery Holders for Electric Clocks

We, FREDERICK ALEXANDER LANFRANCONI, of Swiss nationality, of 3, Broadway Mansions, Walham Green, London, S.W.6, and THE BRITISH VACUUM CLEANER & ENGINEERING COMPANY LIMITED, a British Company, of Parsons Green Lane, Fulham, London, S.W.6, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by

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the following statement:—

This invention relates to electric clocks 80 of the battery operated type and has for its object to provide an improved battery holder or receptacle for such clocks.

It has been proposed to insert a dry 85 battery into a chamber provided between a dust-proof cylindrical casing of a clock and a casing telescopically slid over it, the said chamber containing two contact pins, one of which passes through the wall 90

of the dust-proof casing into the space containing the works.

According to the present invention the battery holder or receptacle consists of a recess formed in the base or casing of the clock and divided by means of a partition into a larger compartment adapted to receive the battery and a smaller compartment adapted to receive the ends of the conductors leading to the clock mechanism, the partition carrying a pair of terminal connectors which protrude through the partition to make contact with the terminals of the battery.

According to a subsidiary feature of the invention, a movable fastening member adapted to secure the battery in place is equipped with a pin or projection arranged to engage and move the battery towards the terminal connectors so as to press the battery terminals into engagement with the said connectors when the fastening member is moved to the fastening position.

The accompanying drawing is a perspective view of a battery holder according to the invention formed in the bottom or base of a clock.

In the drawing, 1 is the undersurface of a bottom or base consisting of a block of wood or other material fitted with feet 2. The base 1 may be the bottom wall of a clock casing or it may constitute a base-ment upon which a separate clock body is mounted.

The base 1 is formed with an open recess 3 of generally rectangular form and adapted to accommodate a battery 4, the said recess having an extension 5 which is of somewhat smaller width than the main part of the recess, so that shoulders are formed at the junction between the main part of the recess and the extension thereof.

The extension 5 is separated from the main body of the recess by means of a partition in the form of a plate 6 made of insulating material such as that known under the registered Trade Mark "Bakelite," the said plate 6 being fastened to the aforementioned shoulders by means of screws or other suitable means.

The partition 6 carries a pair of terminal connectors consisting of metal tabs 7 located on the side of the portion facing the compartment 5 and united by means of metal eyelets passing through openings in the partition to metal tabs or plates capable of making contact with the terminals 8 of the battery.

Flexible conductors 9 connected to the clock mechanism are drawn into the compartment 5 through a suitable hole in the base 1 and are soldered at their ends

to the tabs 7.

In order to hold the battery securely in place, a flat bar 10 is hinged to the base 1 adjacent the recess 3 so that it can be swung across the recess in such a way as to overlie the battery in the manner shown in the drawing. Fastening means in the form of a recess 11 in the bar adapted to engage a stud 12 on the base are provided to secure the bar in the closed position in such a way as to hold the battery in place.

The bar 10 shown in the drawing is a thin strip of steel which lies flat on the surface 1. If it is desired to avoid any projections on the surface 1, however, the bar may be sunk in a shallow recess formed in the base 1, this recess being of such dimensions as to permit the bar to be swung clear of the recess 3 to permit insertion or removal of the battery.

As shown in the drawing, the bar 10 is equipped with a pin or projection 13 arranged to engage the bottom of the battery 4 and to press the battery towards the partition 6 and when the bar is moved to the fastening position. The pin or projection 13 automatically presses the battery terminals 8 into contact with the contact members on the partition 6. A recess 14 is provided in the base 1 to accommodate the pin 13 when the bar 10 is swung to the position shown by the dotted lines for the purpose of removing or inserting the battery.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A battery holder for an electric clock comprising a recess formed in the base or casing of the clock and divided by means of a partition into a larger compartment adapted to receive the battery and a smaller compartment adapted to receive the ends of the conductors leading to the clock mechanism, the partition carrying a pair of terminal connectors which protrude through the partition to make contact with the terminals of the battery.

2. A battery holder as claimed in Claim 1 wherein a movable fastening member adapted to secure the battery in place is equipped with a pin or projection arranged to engage and move the battery when the fastening member is moved to the fastening position and thereby to ensure close contact between the terminals of the battery and the connectors on the partition.

3. A battery holder as claimed in Claim 1 or 2 comprising a bar hinged to the base or casing of the clock adjacent

the recess so that it can be swung across the recess for the purpose of securing the battery in position therein.

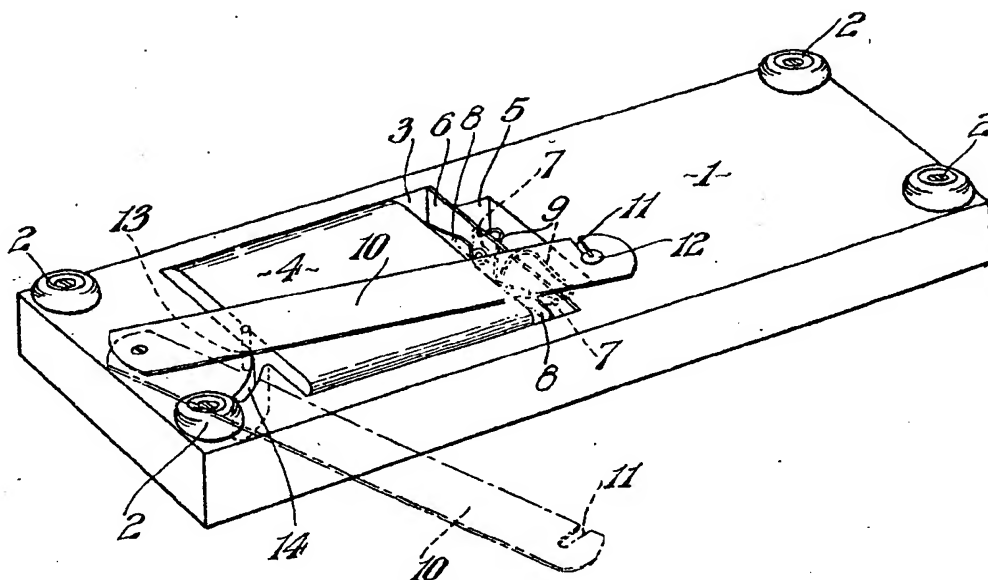
4. A battery holder constructed and
5 arranged substantially as herein described and as shown in the accompanying drawing.

Dated this 4th day of February, 1938.

HERON ROGERS & CO.,
Agents for Applicants,
Bridge House, Queen Victoria Street,
London, E.C.4.

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[This Drawing is a reproduction of the Original on a reduced scale.]



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